IN THE CLAIMS:

Please amend the claims as follows:

Claim 1. (Currently Amended) Porous membranes of (per)fluorinated amorphous polymers having a pore size in the range 5 - 500 nm an average pore size distribution, determined by an atomic force electronic microscope, wherein in the pore size distribution of said membranes 80% - 90% of the pores have a size ranging from minus 5 nm to plus 5 nm of the value of the pore distribution maximum peak.

Claim 2. (Cancelled)

Claim 3. (Previously Presented) Porous membranes of (per)fluorinated amorphous polymers according to claim 1, the (per)fluorinated polymers selected from the group consisting of A), B) and C):

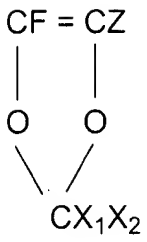
A) polymers made of monomers that are selected from the group consisting of formulas (I), (II), (III) and (V):

$$CF_2=CY_1CY_2 \qquad (II)$$

wherein: Y_1 and Y_2 are selected from F, Cl, CF_3, OR_f

wherein R_f is a C_1 - C_5 perfluoroalkyl radical;

dioxoles having structure (I):



(I)

wherein: Z is selected from F, R_f, OR_f; R_f is a perfluoroalkyl radical C_1 - C_5; X_1 and X_2 are selected from F and CF_3;

bisvinyloxymethanes having structure (III):

$$CFX^1=CX^2\text{-}O\text{-}CX^3X^4\text{-}O\text{-}CX^2=CX^1F \qquad (III)$$

wherein X^1 and X^2, equal to or different from each other, are F, Cl; X^3 and X^4, equal to or different from each other, are F or CF_3;

dienes having structure (IV);

$$CF_2=CF\text{-}O\text{-}(CF_2)_n\text{-}CF=CF_2 \qquad (IV)$$

wherein n = 1 - 5;

B) homopolymers of monomers having structure (I) or (III) or (IV);

C) copolymers of monomers having structure (I) or (III) or (IV).

Claim 4. (Original) Porous membranes of (per)fluorinated amorphous polymers according to claim 3, wherein the copolymer is derived from the structures (I) and (II) wherein $Z=OR_f$ with $R_f=CF_3$, $X_1,X_2,Y_1,Y_2=F$.

Claim 5. (Previously Presented) Porous membranes of (per)fluorinated amorphous polymers according to claim 3, wherein the dioxole percentage having structure (I) is in the range 40%-90% by moles.

Claim 6. (Previously Presented) Porous membranes of (per)fluorinated amorphous polymers according to claim 3, wherein as dioxole having structure (I) 2,2,4-trifluoro-5-trifluoromethoxy-1,3-dioxole (TTD) is used.

Claim 7. (Previously Presented) Porous membranes of (per)fluorinated amorphous polymers according to claim 3, wherein the monomers having structure (II) are selected from tetrafluoroethylene, perfluoroalkylvinylethers (C_1-C_5), hexafluoropropene, chlorotrifluoroethylene.

Claim 8. (Currently Amended) Process for obtaining the porous membranes of (per)fluorinated amorphous polymers according to claim 1, comprising:

- the preparation at room temperature, in the range 15°C-25°C, of a solution of the amorphous polymer in a fluorinated solvent; the solution viscosity at 23°C being in the range 5-5.000 cP (centipoise) ~~, preferably 10-300 cP~~;
- the solution is spread on an inert support ~~, preferably by a stratifying knife having a defined thickness~~;

- it is let evaporate at a constant temperature ~~, preferably equal to that of the spreading,~~ inferior of 10°C-45°C with respect to the solvent boiling temperature, ~~preferably inferior of 15°C-35°C,~~ for ~~such~~ a time ~~as to allow a slow evaporation of the solvent and the consequent formation inside the film of pores having the above mentioned sizes; said time being in the range~~ from about 1 to 10 days~~,~~ ~~preferably 3-6 days~~ .

Claim 9. (Currently Amended) A process according to claim 8, wherein the fluorinated solvent has ~~preferably~~ a boiling temperature in the range 50°C-300°C ~~, preferably 50°C-150°C~~ .

Claim 10. (Currently Amended) A process according to claim 8, wherein the polymer concentration in the solution is in the range 1-20% by weight ~~,~~ ~~preferably 1-10% by weight~~ .

Claim 11. (Previously presented) A process according to claim 8, wherein the fluorinated solvent is selected from (per)fluoropolyethers (Galden®, Fomblin®, Krytox®, Demnum®), hydrofluoropolyethers (H-Galden®), fluorinated and perfluorinated ethers Fluorinert® (series FC and HFE) optionally containing one or more hydrogen atoms in the end groups, perfluoroalkanes.

Claim 12. (Currently Amended) A process according to claim 8, wherein the fluorinated solvent is selected from (per)fluoropolyethers containing the following units:

a) $-O(C_3F_6O)_{m'}(CFXO)_{n'}-$ wherein the units (C_3F_6O) and (CFXO) are perfluorooxyalkylene units statistically distributed along the chain; m' and n' are integers ~~such as~~ to give products having boiling point generally in the range 60°C-300°C, ~~preferably 60°C-150°C,~~ and m'/n' is in the range 5-40, when n' is different from 0 ; X is equal to F or CF_3 ; n' can also be 0;

b) $-O(C_2F_4O)_p,(CFXO)_q,-(C_3F_6O)_t$, wherein p', q' and t' are integers ~~such as~~ to give products having the boiling point mentioned in a), p'/q' ranges from 5 to 0.3 ~~, preferably from 2.7 to 0.5~~ ; t' can be 0 and q'/(q'+p'+t') lower than or equal to 1/10 and the t'/p' ratio is from 0.2 to 6;

c) $-(CR_1R_2CF_2CF_2O)_n-$ wherein R1, R_2, equal to or different from each other are H, F, perfluoroalkyl C_1-C_3; n is an integer ~~such as~~ to give products having the boiling point mentioned in a);

the end groups are selected from $-CF_3$, -C2F_5, $-C_3F_7$, optionally containing one or two chlorine atoms, $-CF_2H$, $-CFHCF_3$.

Claim 13. (Original) A process according to claim 12, wherein the fluorinated solvent is dihydrofluoropolyether of type b) wherein t' is equal to 0, X=F or CF_3 and both end groups are $-CF_2H$; the boiling point being in the range 50°C-80°C.

Claim 14. (Previously presented) A process according to claim 8, wherein the polymeric solution spreading and the solvent evaporation are carried out at a temperature between 10°C and 40°C and using a fluorinated solvent having a boiling temperature between 55°C and 60°C.

Claim 15. (Currently Amended) A process according to claim 8, wherein the support for the spreading of the polymeric film is selected from: glass/quartz, polymethylmethacrylate, polycarbonate, polyurethane, polystyrene, ceramic and metal supports, thermoplastic fluoropolymers~~, preferably glass and polyurethane~~.

Claim 16. (Previously Presented) A ultrafiltration or nanofiltration separation process wherein a solution containing a solute is contacted with the porous membrane of claim 1.

Claim 17. (Previously Presented) Porous membranes of (per)fluorinated amorphous polymers according to claim 1 having a porosity in the range 20-100 nm.

Claim 18. (Previously Presented) Porous membranes of (per)fluorinated amorphous polymers according to claim 3, wherein Z is OR_f.

Claim 19. (Previously Presented) Porous membranes of (per)fluorinated amorphous polymers according to claim 3, wherein X^1 and X^2, equal to or different from each other, are F.

Claim 20. (Previously Presented) Porous membranes of (per)fluorinated amorphous polymers according to claim 3, the dienes having structure (IV) wherein n = 1 - 2.

Claim 21. (Previously Presented) Porous membranes of (per)fluorinated amorphous polymers according to claim 5, wherein the dioxole percentage having structure (I) is in the range 50% - 85% by moles.

Claim 22. (Previously Presented) Porous membranes of (per)fluorinated amorphous polymers according to claim 7, wherein the monomers having structure (II) are tetrafluoroethylene.

Claim 23. (Previously Presented) A method for purifying a fluid containing gas impurities by contacting said fluid with the membranes of claim 1.